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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/423,471

03/28/2000

Craig M. Whitehose

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NEW YORK, NY 10022

EXAMINER

JOHNSTON, PHILLIP A

ART UNIT

PAPER NUMBER

2881

MAIL DATE

DELIVERY MODE

01/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |  |   |  |
|------------------------------|--|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/423,471   | <b>Applicant(s)</b><br>WHITEHOSE ET AL. |  |
|                              | <b>Examiner</b><br>PHILLIP A. JOHNSTON | <b>Art Unit</b><br>2881                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Detailed Action***

1. This Office Action is submitted in response to the amendment filed 10-28-2008, wherein claims 6 and 7 have been added. Claims 1-7 are pending.

***Response to Arguments***

2. Applicant's arguments filed 10-28-2008 have been fully considered but they are not persuasive.

3. Applicant argues at pages 1 and 2 of the remarks that, neither Kuypers nor Foley describe partitions between vacuum stages where the partitions are removable, being part of a removable insert assembly, as described by the subject application,, Hence, the subject invention embodied in Claim 1 cannot be considered obvious in view of Kuypers, Foley, or any combination thereof.

4. The examiner disagrees.

The combination of Kuypers and Foley discloses in the rejection below a demountable vacuum-sealing plate (removable insert assembly) having an ion source, a mass analyzer, an ion detector, an ion entrance port, and ion optics, which one of ordinary skill recognizes would include at least three apertured vacuum partitions, since they are commonly required for such components to normally operate at their required vacuum levels or stages, as taught in Foley at Col. 2, line 19-29.

Kuypers also discloses at Col. 2, line 45-50; and Col. 4, line 44-56 that alternate embodiments of the invention may have additional components, such as a gas chromatograph column mounted to the mass spectrometer assembly, which one of ordinary skill recognizes would require an additional apertured vacuum partition.

In addition, the applicants disclosure at page 2 of the specification states; commercially available API sources from mass spectrometer (MS) manufacturers, including Perkin-Elmer Sciex and Finnigan, were designed for increased user convenience in maintenance of API sources. These API mass spectrometer systems which include two to three vacuum stages have assemblies that plug into the front of the instrument or swing open via a hinged joint. These commercially available removable assemblies include no more than two vacuum partitions and the ion guide assemblies included in these instruments are only removable as separate assemblies.

One of ordinary skill would thus recognize from the above that the prior art discloses mass spectrometer systems having removable mass spectrometer assemblies having plural vacuum partitions.

Therefore one of ordinary skill in the art would expect modifying a prior art removable mass spectrometer system assembly with additional (third) vacuum partitions, to be no more than the predictable use of prior-art elements according to their established functions.

5. The rejection of claims 1-7, under 35 USC 103(a) by are maintained.

6. All claims stand finally rejected.

### **Claims Rejection – 35 U.S.C. 103**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as

a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,753,795 to Kuypers, in view of Foley, USPN 3,767,925.

4. Regarding claims 1-7 Kuypers teaches a demountable vacuum-sealing plate 44 (removable insert assembly) shown below in Figure 3 having; ion source 48, mass analyzer 50, ion detector 52, and ion entrance port 98, which one of ordinary skill would recognize that the assembly shown in Figure 3 below would include a plurality of walls, and partitions with apertures, which each component commonly requires for normal operation. One of ordinary skill would also recognize that the assembly includes other ion optical components for controlling the flow of ions through the assembly. See Col. 2, line 38-49. Kuypers also discloses mounting plate 44 to vacuum chamber 66 (vacuum system housing), connected to vacuum pump 96. Col. 2, line 60-66; and Col. 4, line 40-43.

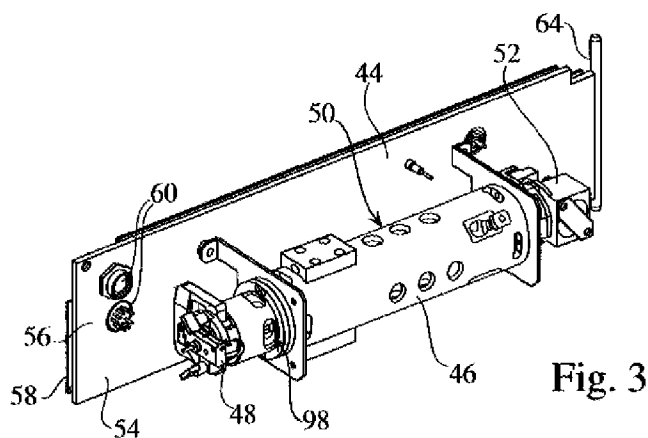


Fig. 3

Kuypers fails to teach the use of vacuum partitions for maintaining vacuum stages when the assembly is inserted into the vacuum system housing.

Foley discloses the use of apertured partions or walls that form three chambers which are each evacuated through different pumping ports. See Col. 2, line 19-29; and Col. 5, line 20-38.

Foley modifies Kuypers to provide plural walls or apertured partitions for dividing an enclosure into three vacuum chambers in order to define the beam path, which would be a predictable result of the use of apertured vacuum partitions to one of ordinary skill in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to separate the Kuypers ion source, mass analyzer and detector with the walls or partitions of Foley, as being no more than the predictable use of prior-art elements according to their established functions. Col. 2, line 19-29; and Col. 5, line 20-33.

### ***Conclusion***

7. The Amendment filed on 10-28-2008 has been considered but is ineffective to overcome the references cited in the Office Action mailed 7-28-2008.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications should be directed to Phillip Johnston whose telephone number is (571) 272-2475. The examiner can normally be reached on Monday-Friday from 7:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor Robert Kim can be reached at (571) 272-2293. The fax phone number for the organization where the application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Application/Control Number: 09/423,471  
Art Unit: 2881

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/ROBERT KIM/

Supervisory Patent Examiner, Art Unit 2881



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|--|-------------------------|---|--|
| <div>Application Number</div> <div></div> | Application/Control No. | Applicant(s)/Patent under Reexamination |  |
|  | 09/423,471              | WHITEHOSE ET AL.                        |  |
|  | Examiner                | Art Unit                                |  |
|  | PHILLIP A. JOHNSTON     | 2881                                    |  |